

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of Buchman *et al.*

Serial No.: 09/524,101

Filed: March 13, 2000

For: INSECT P53 TUMOR SUPPRESSOR GENES
AND PROTEINS

Confirmation No. 6972

Art Unit: 1634

Examiner: Jeanine Goldberg

Attorney Docket No: EX00-015C

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JUN 04 2003

STATEMENT UNDER 37 CFR 1.821-1.825

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Examiner Goldberg:

In adherence with 37 CFR 1.821-1825, this response is accompanied by a diskette containing SEQ ID NOS 01-32 in computer readable form and a paper copy of the sequence information. The computer readable Sequence Listing was prepared through the use of the software program "PatentIn" provided by the Patent and Trademark Office. The sequence information recorded in computer readable form is identical to that of the written Sequence Listing submitted and introduces no new matter.

Respectfully submitted,



Laleh Shayesteh

Reg. No. 47,937

Dated: June 3, 2003

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South San Francisco, California 94083-0511
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SEQUENCE LISTING

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<213> Leptinotarsa decemlineata

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Glu Phe Glu Val Asp Val His Pro Thr Val Ala Lys Asn Ser Trp Val
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195 200 205

Phe Glu Phe Val Cys Lys Asn Ser Cys Pro Ser Pro Gly Met Asn Arg
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Tyr Gly Arg Lys Thr Leu Asn Val Arg Ile Cys Ser Cys Pro Lys Arg
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260 265 270

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275 280 285

Thr Gln Ala Glu Asn Asp Thr Lys Glu Phe Thr Leu Thr Ile Pro Leu
290 295 300

Val Gly Arg His Asn Glu Gln Asn Val Leu Lys Tyr Cys His Asp Leu
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Thr Asn Leu Gly Thr Glu Glu Tyr Pro Gly Pro Phe Asn Phe Ser Val
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Leu Ile Ser Pro Asn Glu Gln Lys Ser Pro Trp Glu Tyr Ser Glu Lys
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Leu Asn Lys Ile Phe Ile Gly Ile Asn Val Lys Phe Pro Val Ala Phe
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Ser Val Gln Asn Arg Pro Gln Asn Leu Pro Leu Tyr Ile Arg Ala Thr
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Pro Val Phe Ser Gln Thr Gln His Phe Gln Asp Leu Val His Arg Cys
130 135 140

Val Gly His Arg His Pro Gln Asp Gln Ser Asn Lys Gly Val Ala Pro
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Phe Gly Asp Lys Asn Thr Gly Thr Arg Leu Asn Ile Val Leu Pro Leu
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210 215 220

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225 230 235 240

Leu Val Gly Val Arg Val Cys Ser Cys Pro Lys Arg Asp Lys Asp Lys
245 250 255

Glu Glu Lys Asp Met Glu Ser Ala Val Pro Pro Arg Arg Lys Lys Arg
260 265 270

Lys Leu Gly Asn Asp Glu Arg Arg Val Val Pro Gln Gly Ser Ser Asp
275 280 285

Asn Lys Ile Phe Ala Leu Asn Ile His Ile Pro Gly Lys Lys Asn Tyr
290 295 300

Leu Gln Ala Leu Lys Met Cys Gln Asp Met Leu Ala Asn Glu Ile Leu
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40

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Leu Cys Asn Thr Glu Tyr Pro Gly Pro Leu Asn Phe Glu Val Phe Val
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Lys Ile Tyr Ile Asp Met Lys His Lys Phe Pro Ile Asn Phe Ser Val
85 90 95

Lys Lys Ala Asp Pro Glu Arg Arg Leu Phe Val Arg Val Met Pro Met
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Phe Glu Glu Asp Arg Tyr Val Gln Glu Leu Val His Arg Cys Ile Cys
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His Glu Gln Leu Thr Asp Pro Thr Asn His Asn Val Ser Glu Met Val
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<212> PRT
<213> Drosophila melanogaster

<400> 20

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35 40 45

Leu Ile Arg Asp Val Asp His Tyr Tyr Asp Leu Tyr Leu Ser Leu Gln
50 55 60

Asn Ser Ala Asp Ala Gly Arg Arg Ser Arg Ser Ile Ser Arg Met His
65 70 75 80

Gln Ser Leu Ile Gln Ala Gln Glu Leu Gly Asp Glu Lys Met Gln Ile
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Val Asn His Met Gln Glu Ile Ile Asp Gly Lys Leu Arg Gln Leu Asp
100 105 110

Thr Asp Gln Gln Asn Leu Asp Leu Lys Glu Asp Arg Asp Arg Tyr Ala
115 120 125

Leu Leu Asp Asp Gly Thr Pro Ser Lys Leu Gln Arg Leu Gln Ser Pro
130 135 140

Met Arg Glu Gln Gly Asn Gln Ala Gly Thr Gly Asn Gly Gly Leu Asn
145 150 155 160

Gly Asn Gly Leu Leu Ser Ala Lys Asp Leu Tyr Ala Leu Gly Gly Tyr
165 170 175

Ala Gly Gly Val Val Pro Gly Ser Asn Ala Met Thr Ser Gly Asn Gly
180 185 190

Gly Gly Ser Thr Pro Asn Ser Glu Arg Ser Ser His Val Ser Asn Gly
195 200 205

Gly Asn Ser Gly Ser Asn Gly Asn Ala Ser Gly Gly Gly Gly Glu
210 215 220

Leu Gln Arg Thr Gly Ser Lys Arg Ser Arg Arg Arg Asn Glu Ser Val
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Val Asn Asn Gly Ser Ser Leu Glu Met Gly Gly Asn Glu Ser Asn Ser
245 250 255

Ala Asn Glu Ala Ser Gly Ser Gly Gly Ser Gly Glu Arg Lys Ser
260 265 270

Ser Leu Gly Gly Ala Ser Gly Ala Gly Gln Gly Arg Lys Ala Ser Leu
275 280 285

Gln Ser Ala Ser Gly Ser Leu Ala Ser Gly Ser Ala Ala Thr Ser Ser
290 295 300

Gly Ala Ala Gly Gly Gly Ala Asn Gly Ala Gly Val Val Gly Gly
305 310 315 320

Asn Asn Ser Gly Lys Lys Lys Arg Lys Val Arg Gly Ser Gly Ala
325 330 335

Ser Asn Ala Asn Ala Ser Thr Arg Glu Glu Thr Pro Pro Pro Glu Thr
340 345 350

Ile Asp Pro Asp Glu Pro Thr Tyr Cys Val Cys Asn Gln Ile Ser Phe
355 360 365

Gly Glu Met Ile Leu Cys Asp Asn Asp Leu Cys Pro Ile Glu Trp Phe

370

375

380

His Phe Ser Cys Val Ser Leu Val Leu Lys Pro Lys Gly Lys Trp Phe
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<213> Drosophila melanogaster

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<212> PRT

<213> Drosophila melanogaster

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35 40 45

Glu Leu Ile Pro Glu Leu Pro Ala Lys Gly Val Val Gln Met Lys Asn
50 55 60

Ala Phe Phe His Lys Ala Leu Ile Met Leu Tyr Met Asp His Ser Leu
65 70 75 80

Val Gly Asp Asp Thr His Met Arg Glu Ile Ile Lys Glu Gly Met Leu
85 90 95

Asp Ile Asn Leu Glu Asn Leu Asn Arg Lys Tyr Thr Asn Gln Val Ala
100 105 110

Asp Ile Ser Glu Met Asp Glu Arg Val Leu Leu Ser Val Gln Gly Ala
115 120 125

Ile Glu Thr Lys Gly Asp Ser Pro Lys Ser Pro Gln Leu Ala Phe Gln
130 135 140

Thr Ser Ser Ser Pro Ser His Arg Lys Leu Ser Thr His Asp Leu Pro
145 150 155 160

Ala Ser Leu Pro Leu Ser Ile Ile Lys Ala Phe Pro Lys Lys Glu Asp
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Ala Asp Lys Ile Val Asn Tyr Leu Asp Gln Thr Leu Glu Glu Met Asn
180 185 190

Arg Thr Phe Thr Met Ala Val Lys Asp Phe Leu Asp Ala Lys Leu Ser
195 200 205

Gly Lys Arg Phe Arg Gln Ala Arg Gly Leu Tyr Tyr Lys Tyr Leu Gln
210 215 220

Lys Ile Leu Gly Pro Glu Leu Val Gln Lys Pro Gln Leu Lys Ile Gly
225 230 235 240

Gln Leu Met Lys Gln Arg Lys Leu Thr Ala Ala Leu Leu Ala Cys Cys
245 250 255

Leu Glu Leu Ala Leu His Val His His Lys Leu Val Glu Gly Leu Arg
260 265 270

Phe Pro Phe Val Leu His Cys Phe Ser Leu Asp Ala Tyr Asp Phe Gln
275 280 285

Lys Ile Leu Glu Leu Val Val Arg Tyr Asp His Gly Phe Leu Gly Arg
290 295 300

Glu Leu Ile Lys His Leu Asp Val Val Glu Glu Met Cys Leu Glu Ser
305 310 315 320

Leu Ile Phe Arg Lys Ser Ser Gln Leu Trp Trp Glu Leu Asn Gln Arg
325 330 335

Leu Pro Arg Tyr Lys Glu Val Asp Ala Glu Thr Glu Asp Lys Glu Asn
340 345 350

Phe Ser Thr Gly Ser Ser Ile Cys Leu Arg Lys Phe Tyr Gly Leu Ala
355 360 365

Asn Arg Arg Leu Leu Leu Cys Lys Ser Leu Cys Leu Val Asp Ser
370 375 380

Phe Pro Gln Ile Trp His Leu Ala Glu His Ser Phe Thr Leu Glu Ser
385 390 395 400

Ser Arg Leu Leu Arg Asn Arg His Leu Asp Gln Leu Leu Leu Cys Ala
405 410 415

Ile His Leu His Val Arg Leu Glu Lys Leu His Leu Thr Phe Ser Met

420

425

430

Ile Ile Gln His Tyr Arg Arg Gln Pro His Phe Arg Arg Ser Ala Tyr
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Tyr Asn Ser Val Tyr Val Gln Ser Met Gly Asn Tyr Gly Arg His Leu
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Glu Cys Ala Gln Thr Arg Lys Ser Leu Glu Glu Ser Gln Ser Ser Val
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<210> 31
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